【CLAIMS】

【Claim 1】

An automatic video summarizer comprising:

an input unit for receiving a video source to be summarized and a desired summarization time from a user;

an importance measurement module for generating importance degrees according to category characteristics of the video and a purpose of desired summary; and

a video summarization generation module for applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary.

【Claim 2】

The automatic video summarizer of claim 1, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

【Claim 3】

The automatic video summarizer of claim 1, wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

【Claim 4】

The automatic video summarizer of claim 1, further comprising a shot detection module for extracting the video sources for respective shots.

【Claim 5】

The automatic video summarizer of one of claims 1 to 4, comprising:

an output unit for outputting the generated video summary to a screen; and

a storage unit for storing the generated video summary.

【Claim 6】

The automatic video summarizer of claim 5, wherein the video summary generation module comprises:

a characteristic support vector module for applying the shot information and the importance value to the characteristic support vector algorithm, and generating a video summary; and

a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user.

【Claim 7】

The automatic video summarizer of claim 6, wherein the shot detection module detects a shot from the video source to be summarized, configures a shot list, and transmits the shot list to the video summarization generation module.

【Claim 8】

An automatic video summarization method comprising:

(a) receiving a video source to be summarized and a desired summarization time from a user;

(b) extracting the video source for each shot;

(c) generating importance degrees according to the video's category characteristic and a purpose of desired summary; and

(d) applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary.

【Claim 9】

The automatic video summarization method of claim 8, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

【Claim 10】

The automatic video summarization method of claim 8, wherein the characteristic support vector algorithm is the fuzzy OC-SVM (one-class support vector machine) algorithm.

【Claim 11】

The automatic video summarization method of one of claims 8 to 10, further comprising:

outputting the generated video summary to the screen; and

storing the generated video summary.

【Claim 12】

The automatic video summarization method of claim 11, wherein (d) comprises applying the shot information and the importance value to the characteristic support vector algorithm, generating a video summary, repeatedly performing a scalability process based on summary time information received from the user, and generating a video summary which has a time range desired by the user.

【Claim 13】

An automatic video summarization method comprising:

(a) receiving a video source to be summarized and a desired summarization time from a user;

(b) generating importance degrees according to the video's category characteristic and a purpose of desired summary;

(c) applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary;

(d) outputting the generated video summary to a screen; and

(e) storing the generated video summary.

【Claim 14】

The automatic video summarization method of claim 13, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

【Claim 15】

The automatic video summarization method of claim 13, wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

【Claim 16】

A recording medium storing a program for an automatic video summarization method, comprising:

receiving a video source to be summarized and a desired summarization time from a user;

extracting the video source for each shot;

generating importance degrees according to the video's category characteristic and a purpose of desired summary; and

applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary.

【Claim 17】

The recording medium of claim 16, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

【Claim 18】

The recording medium of claim 16, wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.